

Response
Application No. 10/808,305
Attorney Docket No. 042262

REMARKS

Claims 1-9 are pending in this application. Reconsideration in view of the following remarks is respectfully requested.

Title of the Invention:

The Title of the Invention stands objected to in item 2 of the Action as being non-descriptive. It is respectfully submitted that the Title of the Invention has been amended to overcome this objection. Accordingly, withdrawal of this objection is requested.

As to the Merits:

As to the merits of this case, the Examiner set forth the following rejections:
claims 1-4 and 6-9 stand rejected under 35 U.S.C. §102(b) as being anticipated by Yoneyama (U.S. Patent 6,480,227); and
claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Yoneyama in view of Kochi (U.S. Patent 6,947,088).

Each of these rejections is respectfully traversed.

The invention relates to the resetting of XY-addressing type solid-state imaging apparatus, where, the pixels of n rows are concurrently selected at a first timing to concurrently effect a reset operation of the pixels of the n rows thereof, and the pixels of n rows of the address

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different from the rows selected at the first timing are concurrently selected at a second timing subsequent to the first timing to concurrently effect a reset operation of the pixels of the n rows thereof. By repeating reset operation in this manner, a reset operation of all the pixels is effected.

It is thereby possible to concurrently reset the pixels of a plurality of rows so that a reduction in time for resetting all pixels becomes possible. Also, by adjusting the number of pixel rows to be concurrently reset at a time, it is possible to achieve a reset time of all pixels that does not depend on the number of pixels.

Yoneyama (U.S. Patent 6,480,227), on the other hand, relates to solid-state imaging device using a non-destructive readout and amplifying pixel. It is designed to make possible a high-speed readout and pixel signal operation based on added readout or differential readout.

Column 15, lines 3-32 of Yoneyama as pointed out by the Examiner discloses a concurrent readout of n rows at every n rows, for example, in such a manner that a first row and a second row are concurrently selected at first, and, after reading a sum of the pixel signals of the first row and the second row, a third row and a fourth row are then concurrently selected to read a sum of the pixel signals of the third row and the fourth row. As such, no disclosure at all is made in that portion concerning a reset operation of pixel.

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Since, in Yoneyama, the non-destructive readout using an amplifying device is effected, the reset methods of pixel therein include a reset method of photodiode where remaining electric charge at photodiode is drained off or a method where electric charge at a control electrode of the amplifying device is reset (initialized). Such methods are disclosed therein (column 10, lines 5-19, column 11, line 53 to column 12, line 12, column 13, lines 31-49, etc.).

These reset methods in Yoneyama, however, are different from the method where, as in the present invention, the pixels of n rows are concurrently selected at a first timing to concurrently effect a reset operation of the pixels of the n rows thereof and the pixels of n rows of the address different from the rows selected at the first timing are concurrently selected at a second timing subsequent to the first timing to concurrently effect a reset operation of the pixels of the n rows thereof, and where reset operation in this manner is repeated to effect a reset operation of all pixels.

As noted above, no disclosure or suggestion is made at all in Yoneyama with respect to the reset method of pixel according to the present invention. Thus, claim 1, and claims 2 to 9 depending thereon, are believed to be in condition for allowance.

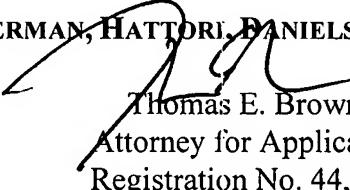
If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP


Thomas E. Brown
Attorney for Applicants
Registration No. 44,450
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

TEB/nrp